

THE CLAIMS

What is claimed is:

- 5 1. A system for implementing smart cards, comprising:
 a network of card readers and processing equipment that are
configured to identify the relative location of a data element from a data group directory on-
board smart cards for a current application and are further configured to apply anti-tearing to
a subset of data element that are stored on the smart cards to provide related functionality for
10 the current application.
2. The system of claim 1 wherein the network of card readers and
processing equipment apply anti-tearing differently based on different anti-tearing
classifications associated with different data elements in the subset.
- 15 3. The system of claim 2 wherein one of the anti-tearing classifications is
parallel.
4. The system of claim 2 wherein one of the anti-tearing classifications is
20 circular.
5. The system of claim 2 wherein one of the anti-tearing classifications is
alternate.
- 25 6. The system of claim 1 wherein the network of card readers and
processing equipment is configured to read a valid data record list stored on the smart cards
to identify valid data.
7. The system of claim 6 wherein the network of card readers and
30 processing equipment is configured to read one of two alternate valid data record lists stored
on the smart cards to identify valid data.
8. The system of claim 6 wherein the size of the valid data record list is
less than or equal to a memory block of the smart cards.

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9. The system of claim 1 wherein the network of card readers and processing equipment holds information specifying to which data element anti-tearing should be applied.

5 10. A method for implementing smart cards, comprising:
configuring a network of card readers and processing equipment to identify the relative location of a data element from a data group directory on-board smart cards for a current application and to apply anti-tearing to a subset of data element that are stored on smart cards to provide related functionality for the current application; and
10 interacting with the network using a plurality of the smart cards to obtain the benefit of the current application.

11. The method of claim 10 wherein the network of card readers and processing equipment apply anti-tearing differently based on different anti-tearing
15 classifications associated with different data elements in the subset.

12. The method of claim 10 wherein one of the anti-tearing classifications is parallel.

20 13. The method of claim 10 wherein one of the anti-tearing classifications is circular.

14. The method of claim 10 wherein one of the anti-tearing classifications is alternate.

25 15. The method of claim 10 wherein the network of card readers and processing equipment read a valid data record list stored on the smart cards to identify valid data.

30 16. The method of claim 15 wherein the network of card readers and processing equipment read one of two alternate valid data record list stored on the smart cards to identify valid data.

17. The method of claim 15 wherein the size of the valid data record list is less than or equal to a memory block of the smart cards.

18. The method of claim 10 wherein the network of card readers and
5 processing equipment holds information specifying to which data element anti-tearing should be applied.